

APPENDIX I

Standard Operating Procedures for Fertility Control Treatment

The following management and monitoring requirements are part of the Proposed Action:

- PZP vaccine would be administered by trained BLM personnel.
- A liquid dose of PZP would be administered concurrently with a time released portion of the drug (pelleted formulation) to breeding mares returned to the range (the pellets are injected with the liquid and are designed to release PZP at several points in time much the way time-release cold pills work).
- Delivery of the vaccine would be as an intramuscular injection by jab stick syringe or dart with a 12 gauge needle or 1.5" barbless needle, respectively while mares are restrained in the working chute; 0.5 cubic centimeters (cc) of the PZP vaccine would be emulsified with 0.5 cc of adjuvant (a compound that stimulates antibody production) and loaded into the delivery system. The pellets would be placed in the barrel of the syringe or dart needle and would be injected with the liquid. Upon impact, the liquid in the chamber would be propelled into the muscle along the pellets¹.
- All treated mares would be freeze-marked on the hip to enable researchers to positively identify the animals during the research project as part of the data collection phase.
- At a minimum, monitoring of reproductive rates using helicopter flyovers will be conducted in years 2 through 4 by locating treated mares and checking for presence/absence of foals. The flight scheduled for year 4 will also assist in determining the percentage of mares that have returned to fertility. In addition, field monitoring will be routinely conducted as part of other regular ground-based monitoring activities.
- A field data sheet will be forwarded to the field from BLMs National Program Office (NPO) prior to treatment. This form will be used to record all pertinent data relating to identification of the mare (including a photograph when possible), date of treatment, type of treatment (1 or 2 year vaccine, adjuvant used) and HMA, etc. The form and any photos will be maintained at the field office and a copy of the completed form will be sent to the authorized officer at NPO (Reno, Nevada).
- A tracking system will be maintained by NPO detailing the quantity of PZP issued, the quantity used, disposition of any unused PZP, the number of treated mares by HMA, field office, and state along with the freeze-mark applied by HMA.
- The field office will assure that treated mares do not enter the adoption market for three years following treatment. In the rare instance, due to unforeseen circumstance,

¹ This delivery method has been used previously to deliver immunocontraceptive vaccine with acceptable results. Administration of this two year vaccine to mares would be expected to be 94% effective the first year, 82% effective the second year, and 68% effective the third year. To date, one herd area has been studied using the 2-year PZP vaccine. The Clan Alpine study in Nevada was started in January 2000 with the treatment of 96 mares. The test resulted in fertility rates in treated mares of 6% in year one, 18% in year two and 32% in year three. Average fertility rates in untreated mares range between 50-60% in most populations. The Clan Alpine fertility rate in untreated mares, obtained from direct observation in September of each year, average 51% over the course of the study.

treated mare(s) are removed from an HMA before three years has lapsed, they will be maintained in either a BLM facility or a BLM-contracted long term holding facility until expiration of the three year holding period. In the event it is necessary to remove treated mares, their removal and disposition will be coordinated through NPO. After expiration of the three year holding period, the animal may be placed in the adoption system.